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Natural
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Idaho
Basin Outlook Report
April 1, 1995

Basin Outlook Reports
and
Federal - State - Private
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For more water supply and resource management information, contact:

Your local Natural Resources Conservation Service Office
or
Natural Resources Conservation Service
Snow Surveys
3244 Elder Street, Room 124
Boise, ID 83705-4711
(208) 334-1614

How forecasts are made

Most of the annual streamflow in the Western United States originates as snowfall that has accumulated high in the mountains during winter and early spring. As the snowpack accumulates, hydrologists estimate the runoff that will occur when it melts. Predictions are based on careful measurements of snow water equivalent at selected index points. Precipitation, temperature, soil moisture and antecedent streamflow data are combined with snowpack data to prepare runoff forecasts. Streamflow forecasts are coordinated by Natural Resources Conservation Service and National Weather Service hydrologists. This report presents a comprehensive picture of water supply conditions for areas dependent upon surface runoff. It includes selected streamflow forecasts, summarized snowpack and precipitation data, reservoir storage data, and narratives describing current conditions.

Snowpack data are obtained by using a combination of manual and automated SNOTEL measurement methods. Manual readings of snow depth and water equivalent are taken at locations called snow courses on a monthly or semi-monthly schedule during the winter. In addition, snow water equivalent, precipitation and temperature are monitored on a daily basis and transmitted via meteor burst telemetry to central data collection facilities. Both monthly and daily data are used to project snowmelt runoff.

Forecast uncertainty originates from two sources: (1) uncertainty of future hydrologic and climatic conditions, and (2) error in the forecasting procedure. To express the uncertainty in the most probable forecast, four additional forecasts are provided. The actual streamflow can be expected to exceed the most probable forecast 50% of the time. Similarly, the actual streamflow volume can be expected to exceed the 90% forecast volume 90% of the time. The same is true for the 70%, 30%, and 10% forecasts. Generally, the 90% and 70% forecasts reflect drier than normal hydrologic and climatic conditions; the 30% and 10% forecasts reflect wetter than normal conditions. As the forecast season progresses, a greater portion of the future hydrologic and climatic uncertainty will become known and the additional forecasts will move closer to the most probable forecast.

IDAHO WATER SUPPLY OUTLOOK REPORT

APRIL 1, 1995

SUMMARY

As the 1995 snowfall season comes to a close, most Idaho water users can be assured of an adequate water supply this year. The central mountains received heavy snowfall during March, assuring abundant water supplies for that region of the state. Snowpacks are below normal along the northern and southern edges of Idaho, and water supplies will be below average in those areas. With the possible exception of the Bear River basin, no significant shortages are expected anywhere in the state -- a major improvement over last year!

SNOWPACK

Idaho's central mountains were blasted with heavy snowfall during March, improving the snowpack considerably in that area. The Wood and Lost River basins (the epicenter of last year's drought) now report the best snowpack in the state -- over 130% of average. All central mountain watersheds -- from the Weiser in the west to the Henrys Fork in the east -- report above average snowpacks. March was not as beneficial to the Idaho Panhandle: snowpacks in that region are now 70-90% of average. Warm temperatures resulted in a decline in snowpacks south of the Snake River: the Owyhee, Bruneau, Salmon Falls Creek, and Oakley watersheds all report snowpacks around 80% of average. The timing of spring snowmelt will determine the effectiveness of runoff from the mountain snowpack. Spring rainfall, cool temperatures during April, and delayed snowmelt will generally provide the best water yield.

PRECIPITATION

March was a very wet month for most of Idaho. Pacific moisture from California's second flooding episode zeroed in on the central mountains. By the third week of the month, SNOTEL sites in the Wood and Lost River basins had already received 2-3 times the normal March complement of precipitation. Several SNOTEL sites in the Wood River basin set new record increases for the month. Other central mountain watersheds received around 150% of normal moisture. The weather pattern was not as beneficial to the northern and southern borders of the state. Precipitation was near average in those areas, but rain and warm temperatures early in the month caused overall declines in the mountain snowpack.

RESERVOIRS

Reservoir storage throughout the state improved significantly during the month of March. The best improvements were reported in low elevation watersheds where heavy rainfall improved runoff conditions. Magic Reservoir storage increased over 60,000 acre-feet -- almost a third of its total capacity -- bringing the reservoir to 41% of its full capacity. The Snake system is almost two-thirds full -- a good improvement from the 40% figure reported on January 1. The Boise system is now half full (82% of average) while the Payette basin reports above average storage for this time of year. All major reservoirs in the Boise, Payette, Wood, Lost, and Snake River basins are expected to fill this year -- very good news considering conditions at the end of last year's irrigation season.
Note: NRCS reports reservoir information in terms of usable volumes, which includes both active, inactive, and in some cases dead storage. Other operators may report reservoir contents in different terms. For additional information, see the reservoir definitions in the back of this report.

STREAMFLOW

Streamflow was above average statewide during March, the result of heavy rainfall and low elevation snowmelt early in the month. Prospects for spring and summer runoff in the central mountains look very encouraging. Forecasts range from 156% of average for the Big Wood River near Bellevue to 97% for Camas Creek near Blaine. Property owners in the Wood River valley and Henrys Fork area should be prepared for high water this spring. According to the National Weather Service, the possibility of spring flooding exists in those areas due to the heavy snowpack conditions. In the northern and southern edges of the state, streamflow forecasts dropped 5-10 percentage points and now call for slightly below normal volumes. Most northern Idaho streams are expected to yield 70-90% of average runoff. Most streams south of the Snake River are forecast at 80-90% of normal spring runoff.

RECREATION OUTLOOK

Plenty of water for everyone! That's the word for Idaho's recreational rivers and reservoirs this year. Heavy March snowfall in Idaho's central mountains brings the promise of high spring flows and an extended season for the Salmon, Payette, and Boise rivers. The Middle Fork Salmon should see peak flows of 6-8 feet or even higher. If cool weather persists into April, there is a good chance of flows above 3 feet extending into late July. Snowpacks in northern Idaho's recreational rivers are 75-80% of average, and lower than normal flows are expected for streams in that area. In the southwest corner of the state, early snowmelt has depleted low elevation snow on the Jarbidge, Bruneau, and Owyhee rivers. High flows are no longer expected on the Owyhee unless caused by heavy rainfall. The Jarbidge and Bruneau rivers are expected to yield around 80% of normal runoff. This will most likely translate into an early season with moderate flows.

IDAHO SURFACE WATER SUPPLY INDEX

The Surface Water Supply Index (SWSI) is a predictive indicator of surface water availability within a watershed for the spring and summer water use season. The index is calculated by combining pre-runoff reservoir storage (carryover) with forecasts of spring and summer streamflow. SWSI values are scaled from +4.1 (abundant supply) to -4.1 (extremely dry), with a value of zero indicating a median water supply as compared to historical occurrences.

SWSI values are published January through May, and provide a more comprehensive outlook of water availability than either streamflow forecasts or reservoir storage figures alone. The SWSI index allows comparison of water availability between basins for drought or flood severity analysis. Threshold SWSI values have been established for most basins to indicate the potential for agricultural water shortages.

The following agencies and cooperators provide assistance in the preparation of the Surface Water Supply Index for Idaho:

US Department of Agriculture, Natural Resources Conservation Service
US Department of Interior, Bureau of Reclamation
US Department of Commerce, National Weather Service
US Army Corps of Engineers
Idaho Department of Water Resources
Idaho Water Users Association
PaciCorp

IDAHO SURFACE WATER SUPPLY INDEX (SWSI)
As of April 1, 1995

Basin or Region	SWSI	Most Recent Year With Similar SWSI Value	Agricultural Water Supply Shortages May Occur When SWSI Is Less Than:
Panhandle	-2.5	1980	NA
Clearwater	-1.0	1985	NA
Salmon	0.4	1993	NA
Weiser	0.5	1980	NA
Payette	2.7	1984	NA
Boise	0.7	1978/80	-2.6
Big Wood	1.6	1975	-1.4
Little Wood	2.3	1980/86	-2.1
Big Lost	2.0	1980/86	-0.8
Little Lost	1.6	1986	0.0
Henrys Fork	1.9	1993	-3.3
Snake (American Falls)	1.2	1980	-2.0
Oakley	-0.3	1993	0.0
Salmon Falls	0.4	1989	0.0
Bruneau	-1.3	1989	NA
Owyhee	-0.3	1993	NA
Bear River	-3.8	1994	-3.8

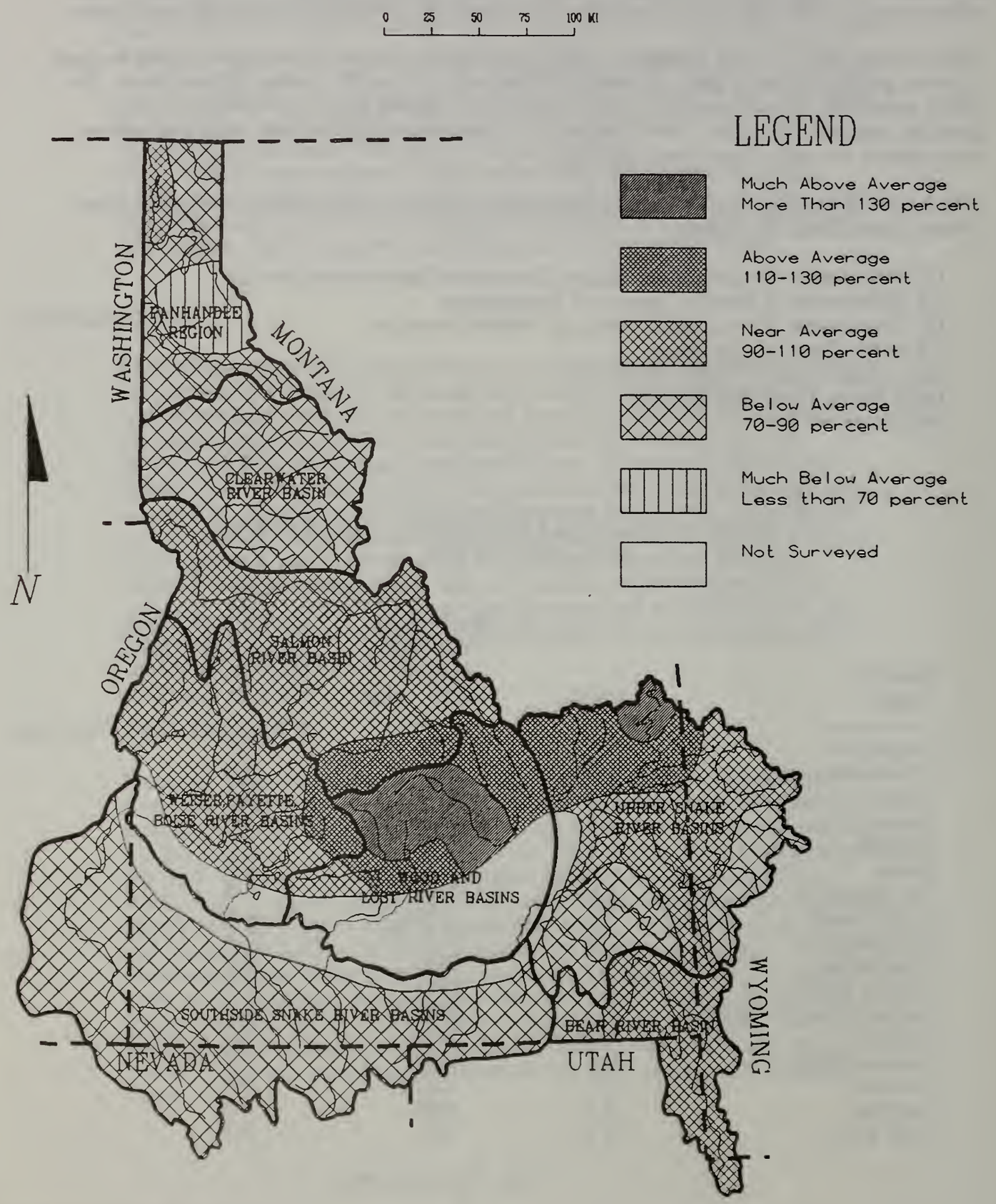
NA - Not Applicable

SWSI Scale

1.5 to 4.1	Above Normal Supply
-1.5 to 1.5	Near Normal Supply
-3.0 to -1.5	Below Normal Supply
-4.1 to -3.0	Very Short Supply

IDAHO MOUNTAIN SNOWPACK

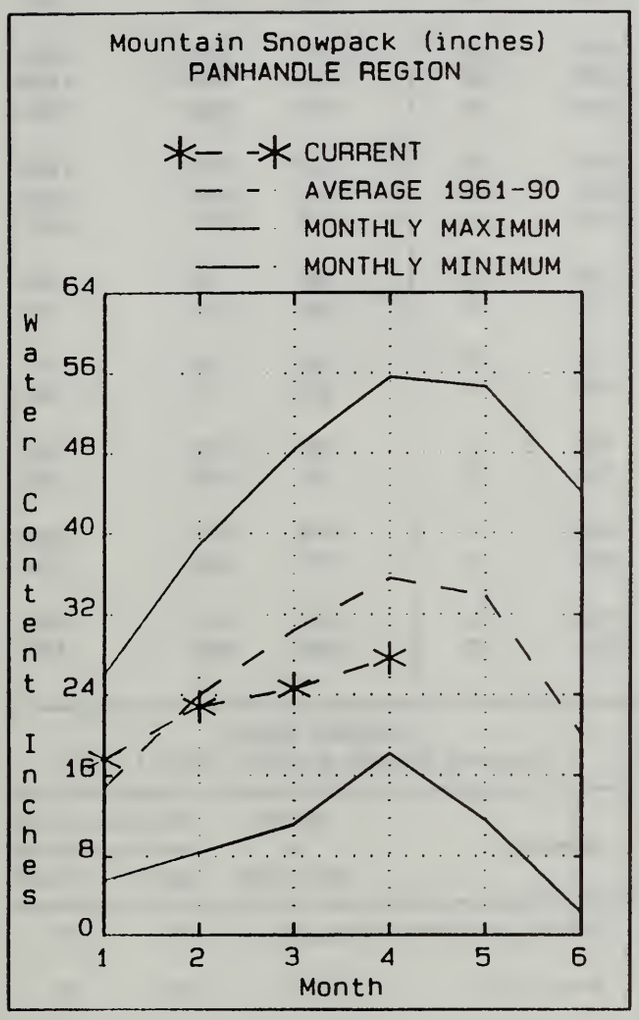
APRIL 1, 1995

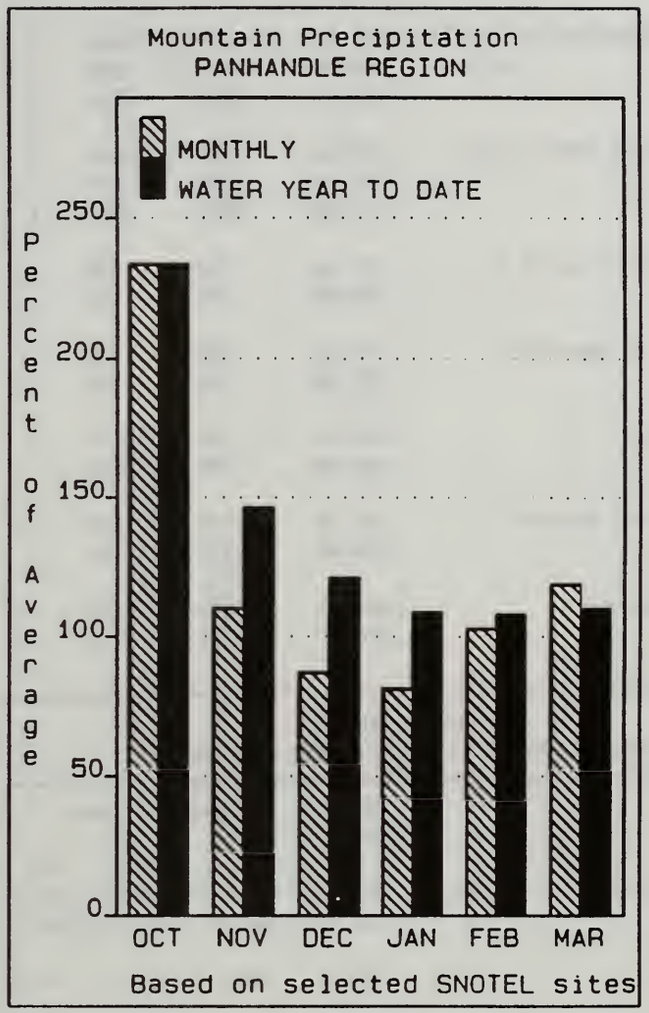


NATURAL RESOURCES CONSERVATION SERVICE
U.S. DEPARTMENT OF AGRICULTURE

PANHANDLE REGION BASIN

APRIL 1, 1995





WATER SUPPLY OUTLOOK

March brought above average precipitation to the Panhandle Region, but rain and warm temperatures kept the overall snowpack percentages about the same as a month ago. Low elevation snowpacks have declined significantly. Snowpacks currently range from 70 to 95% of average; the Panhandle has seen below average snowpacks for 16 of the last 19 years. Reservoir storage remains promising with Coeur d'Alene Lake, Pend Oreille Lake and Priest Lake each reporting above average levels. Streamflow forecasts reflect the lack of improvement in the mountain snowpack and have decreased 5-10 percentage points from last month. Forecasts currently call for 70% of average for the Spokane River near Post Falls and 91% of average for the Priest River. Water supplies will be below average in the Idaho Panhandle this year, with no significant shortages expected.

PANHANDLE REGION
Streamflow Forecasts - April 1, 1995

Forecast Point	Forecast Period	<<====== Drier ====== Future Conditions ======= Wetter =====>> Chance Of Exceeding * 90% (1000AF)	70% (1000AF)	50% (Most Probable) (1000AF)	(% AVG.)	30% (1000AF)	10% (1000AF)	30-Yr Avg. (1000AF)
KOOTENAI at Leonia (1,2)	APR-JUN	3860	4620	4960	87	5310	6060	5701
	APR-JUL	4880	5820	6250	87	6680	7620	7199
	APR-SEP	5600	6690	7180	87	7670	8760	8275
CLARK FK at Whitehorse Rpds (1,2)	APR-JUN	4470	5890	6530	65	7170	8590	10050
	APR-JUL	5170	6830	7580	65	8330	9990	11730
	APR-SEP	5690	7510	8340	65	9170	11000	12910
PEND OREILLE Lake Inflow (1,2)	APR-JUN	5020	6740	7520	66	8300	10000	11390
	APR-JUL	6030	7850	8680	66	9510	11300	13150
	APR-SEP	6580	8570	9480	66	10400	12400	14370
PRIEST nr Priest River (1,2)	APR-JUL	535	675	740	91	805	945	814
	APR-SEP	570	720	790	91	860	1010	868
COEUR D'ALENE at Enaville	APR-JUL	430	515	571	74	625	710	770
	APR-SEP	420	550	610	75	670	810	809
ST.JOE at Calder	APR-JUL	685	790	858	73	930	1030	1169
	APR-SEP	720	830	900	73	970	1080	1237
SPOKANE near Post Falls (2)	APR-JUL	1410	1670	1850	70	2030	2290	2633
	APR-SEP	1310	1750	1930	71	2110	2570	2730
SPOKANE at Long Lake	APR-JUL	1640	1930	2122	72	2320	2610	2936
	APR-SEP	1810	2110	2315	73	2520	2820	3159

PANHANDLE REGION
Reservoir Storage (1000 AF) - End of March

Reservoir	Usable Capacity	*** Usable Storage *** This Year	Last Year	Avg
HUNGRY HORSE	3451.0	1863.0	811.8	2046.0
FLATHEAD LAKE	1791.0	656.4	616.0	751.9
NOXON RAPIDS	335.0	301.0	264.0	231.3
PEND OREILLE	1561.3	989.0	562.7	813.7
COEUR D'ALENE	238.5	201.5	105.5	170.1
PRIEST LAKE	119.3	84.0	58.6	61.2

PANHANDLE REGION
Watershed Snowpack Analysis - April 1, 1995

Watershed	Number of Data Sites	This Year as % of Last Yr	Average
Kootenai ab Bonners Ferry	36	119	85
Moyie River	3	128	79
Priest River	5	123	95
Pend Oreille River	110	117	80
Rathdrum Creek	4	142	83
Hayden Lake	2	83	65
Coeur d'Alene River	11	114	68
St. Joe River	6	132	74
Spokane River	20	121	73
Palouse River	2	290	69

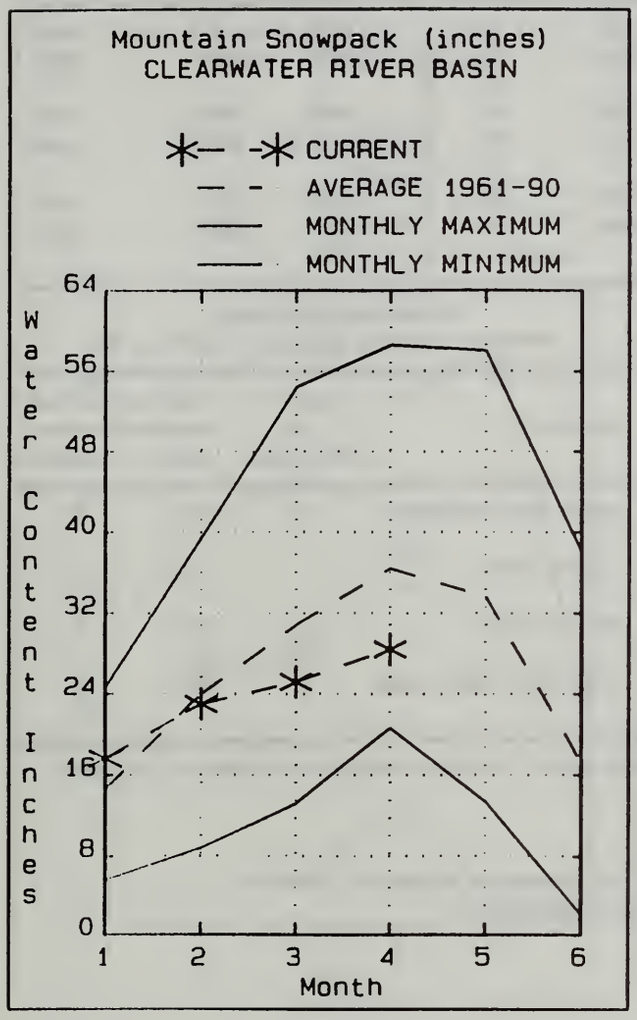
* 90%, 70%, 30%, and 10% chances of exceeding are the probabilities that the actual flow will exceed the volumes in the table.

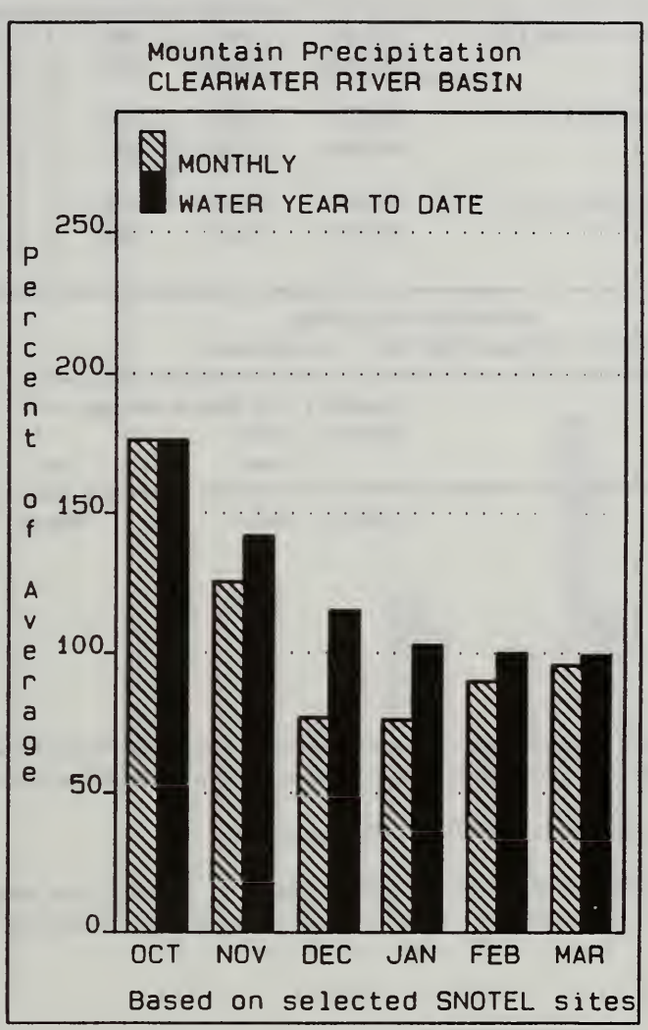
The average is computed for the 1961-1990 base period.

(1) - The values listed under the 10% and 90% Chance of Exceeding are actually 5% and 95% exceedance levels.
(2) - The value is natural flow - actual flow may be affected by upstream water management.

CLEARWATER BASIN

APRIL 1, 1995





WATER SUPPLY OUTLOOK

March precipitation was near normal in the Clearwater basin, keeping the water year to date precipitation near normal as well. Warm temperatures and rainfall during March caused snowpacks to decline a few percentage points over the month. Snowpacks currently range from 75 to 80% of average; even with the decline over the month these values are 10-20 percentage points better than last year. Dworshak Reservoir is currently 89% of capacity, above average storage for this time of year. Streamflow forecasts decreased slightly from last month and now range from 75 to 78% of average in the basin. River runners and other water users can expect lower than normal flows this summer, similar to conditions in 1993.

CLEARWATER RIVER BASIN
Streamflow Forecasts - April 1, 1995

Forecast Point	Forecast Period	<<====== Drier ====== Future Conditions ======= Wetter =====>> Chance Of Exceeding * 90% (1000AF)	70% (1000AF)	50% (Most Probable) (1000AF)	(% AVG.)	30% (1000AF)	10% (1000AF)	30-Yr Avg. (1000AF)
DWORSHAK Reservoir Inflow (2)	APR-JUL	1450	1940	2090	78	2240	2690	2692
	APR-SEP	1840	2070	2220	77	2370	2600	2866
CLEARWATER at Orofino (1)	APR-JUL	2250	3120	3520	75	3920	4790	4718
	APR-SEP	2410	3330	3750	75	4170	5090	4976
CLEARWATER at Spalding (1,2)	APR-JUL	4150	5370	5930	78	6490	7710	7618
	APR-SEP	4440	5730	6320	78	6910	8200	8052

CLEARWATER RIVER BASIN
Reservoir Storage (1000 AF) - End of March

Reservoir	Usable Capacity	*** Usable Storage *** This Year	Last Year	Avg
DWORSHAK	3459.0	3065.6	2675.2	1996.2

CLEARWATER RIVER BASIN
Watershed Snowpack Analysis - April 1, 1995

Watershed	Number of Data Sites	This Year as % of Last Yr	Average
North Fork Clearwater	13	131	78
Lochsa River	4	123	75
Selway River	7	106	76
Clearwater Basin Total	23	124	76

* 90%, 70%, 30%, and 10% chances of exceeding are the probabilities that the actual flow will exceed the volumes in the table.

The average is computed for the 1961-1990 base period.

(1) - The values listed under the 10% and 90% Chance of Exceeding are actually 5% and 95% exceedance levels.
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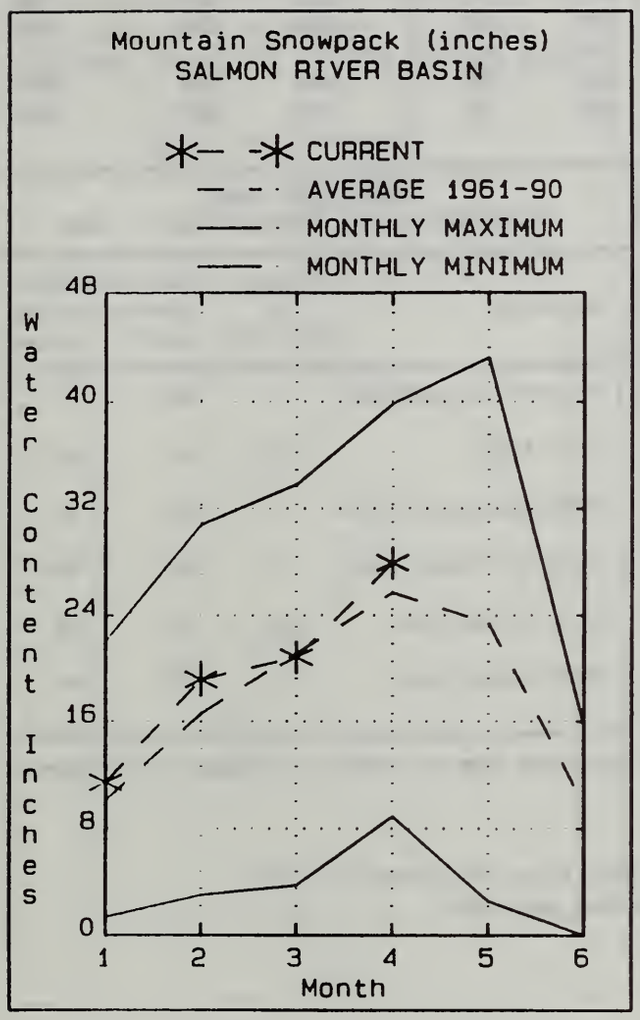
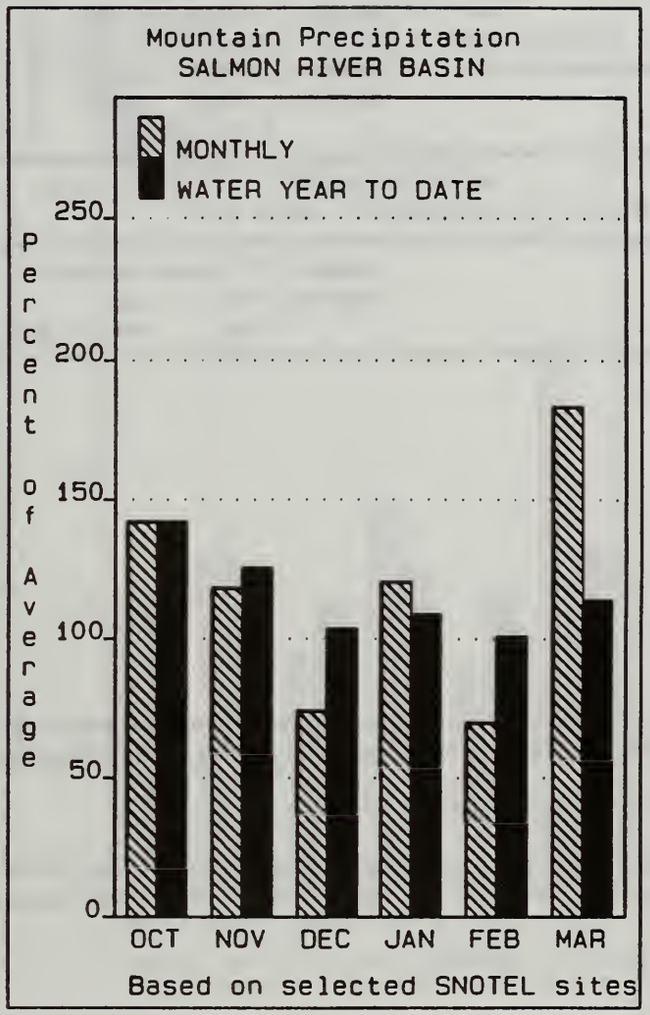
SALMON RIVER BASIN

APRIL 1, 1995





WATER SUPPLY OUTLOOK

Once again the Salmon River was the dividing line for March precipitation, with wet conditions to the south and drier conditions to the north. Precipitation for the basin was 183% of normal for the month, with some stations reporting over 250% of normal. Snowpack percentages increased from last month and now range from 100 to 110% of average. This is only the third time since 1983 that snowpacks have been above average on April 1. Streamflow forecasts reflect the good snowpack values and call for 116% of average for the Salmon River at Salmon and 101% for the Salmon River at White Bird. River runners could see an extended boating season on the Salmon River. The Middle Fork Salmon should see peak flows of 6-8 feet or even higher. If cool weather persists into April, there is a good chance of flows above 3 feet extending into late July. Water supplies should be abundant for all water users in the Salmon River basin this year.

SALMON RIVER BASIN
Streamflow Forecasts - April 1, 1995

Forecast Point	Forecast Period	<<====== Drier ====== Future Conditions ======= Wetter =====>> Chance Of Exceeding * 90% (1000AF)	70% (1000AF)	50% (Most Probable) (1000AF)	(% AVG.)	30% (1000AF)	10% (1000AF)	30-Yr Avg. (1000AF)
SALMON at Salmon (1)	APR-JUL	700	915	1010	116	1110	1320	869
	APR-SEP	825	1080	1190	117	1300	1550	1019
SALMON at White Bird (1)	APR-JUL	4640	5600	6030	101	6460	7390	5956
	APR-SEP	5140	6200	6680	101	7160	8220	6602

SALMON RIVER BASIN
Reservoir Storage (1000 AF) - End of March

Reservoir	Usable Capacity	*** Usable Storage *** This Year	Last Year	Avg

SALMON RIVER BASIN
Watershed Snowpack Analysis - April 1, 1995

Watershed	Number of Data Sites	This Year as % of Last Yr	Average
Salmon River ab Salmon	11	209	112
Lemhi River	10	161	108
Middle Fork Salmon River	3	212	108
South Fork Salmon River	3	206	108
Little Salmon River	4	177	103
Salmon Basin Total	32	179	104

* 90%, 70%, 30%, and 10% chances of exceeding are the probabilities that the actual flow will exceed the volumes in the table.

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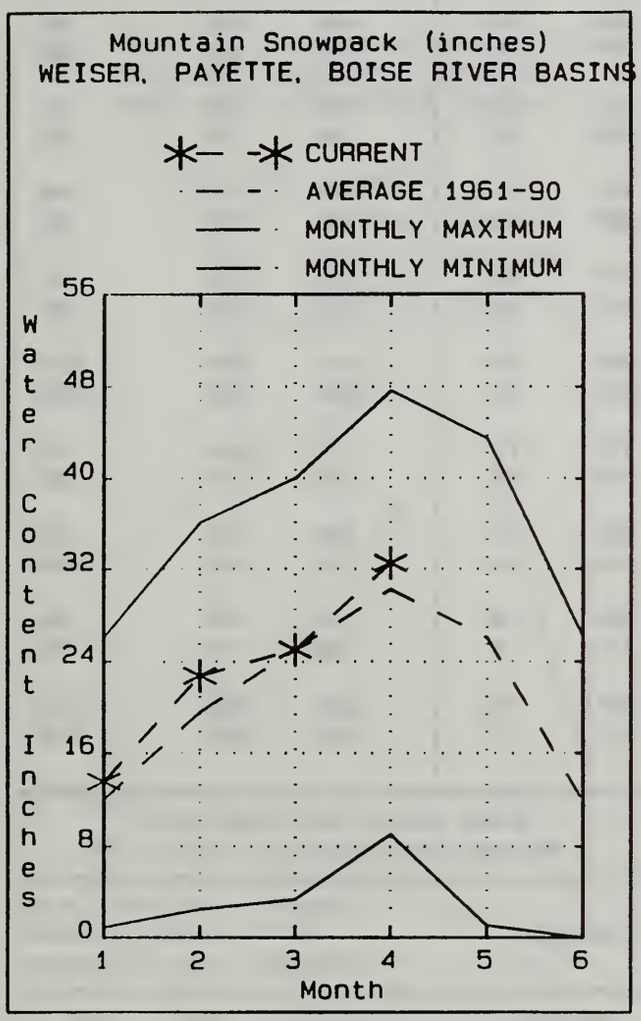
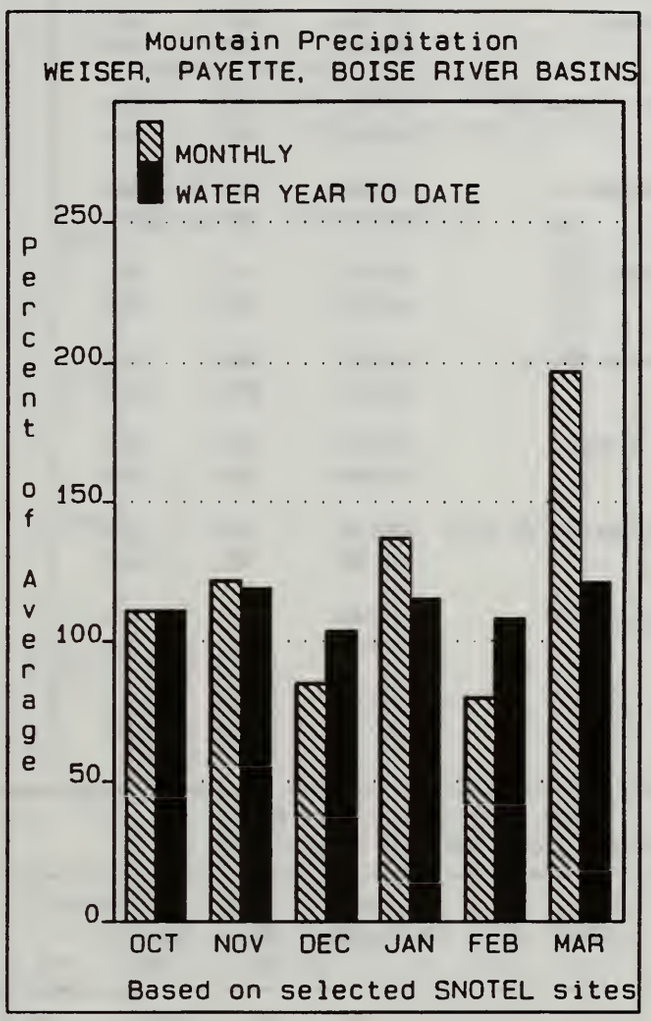
WEISER, PAYETTE, BOISE RIVER BASINS

APRIL 1, 1995





WATER SUPPLY OUTLOOK

March was a real blessing to the west central mountains: SNOTEL sites in the area received over one and a half times the normal moisture for the month. Snowpacks improved 10-15 percentage points since March 1, and now range from 100% of average in Mann Creek to 110% in the South Fork Boise basin. Streamflow forecasts took a corresponding increase, and now call for above average flows for the Weiser, Payette, and Boise Rivers. River and reservoir recreation opportunities should be abundant this year. All reservoirs in the Boise and Payette systems are expected to fill, with a full irrigation supply virtually assured this year. With careful irrigation water management, some carry over storage could be retained at the end of the irrigation season for next year.

WEISER, PAYETTE, BOISE RIVER BASINS
Streamflow Forecasts - April 1, 1995

Forecast Point	Forecast Period	<<====== Drier ====== Future Conditions ======= Wetter =====>> Chance Of Exceeding * 90% (1000AF)	70% (1000AF)	50% (Most Probable) (1000AF)	(% AVG.)	30% (1000AF)	10% (1000AF)	30-Yr Avg. (1000AF)
WEISER nr Weiser (1)	APR-JUL	240	360	415	108	470	590	386
	APR-SEP	260	385	445	107	505	630	415
SF PAYETTE at Lowman	APR-JUL	430	470	493	114	515	555	432
	APR-SEP	485	525	553	113	580	620	488
DEADWOOD RESERVOIR Inflow (2)	APR-JUL	149	159	166	123	173	183	135
	APR-SEP	155	166	173	121	180	191	143
NF PAYETTE nr Cascade (2)	APR-JUL	550	605	641	129	675	730	496
	APR-SEP	585	655	695	130	735	805	533
NF PAYETTE nr Banks (2)	APR-JUL	645	720	770	127	820	895	607
	APR-SEP	735	820	875	127	930	1010	690
PAYETTE nr Horseshoe Bend (2)	APR-JUL	1820	1960	2050	127	2140	2280	1618
	APR-SEP	1910	2140	2240	128	2340	2560	1755
BOISE near Twin Springs	APR-JUL	580	665	700	111	735	820	631
	APR-SEP	660	715	755	110	795	850	686
SF BOISE at Anderson Rnch Dm (1,2)	APR-JUL	530	600	630	116	660	735	544
	APR-SEP	565	640	675	116	710	785	582
MORES CK nr Arrowrock Dam	APR-JUL	109	120	127	98	134	145	129
	APR-SEP	113	124	131	98	138	149	134
BOISE nr Boise (1,2)	APR-JUL	1320	1550	1620	114	1690	1900	1421
	APR-SEP	1480	1650	1735	113	1820	1990	1535

WEISER, PAYETTE, BOISE RIVER BASINS
Reservoir Storage (1000 AF) - End of March

Reservoir	Usable Capacity	*** Usable Storage *** This Year	Last Year	Avg
MANN CREEK	11.1	10.4	8.3	8.7
CASCADE	703.2	497.5	473.2	377.6
DEADWOOD	161.9	65.7	102.7	90.8
ANDERSON RANCH	464.2	111.3	335.0	278.1
ARROWROCK	286.6	237.3	206.0	227.8
LUCKY PEAK	293.2	189.6	135.7	153.2
LAKE LOWELL (DEER FLAT)	177.1	103.0	128.5	152.9

WEISER, PAYETTE, BOISE RIVER BASINS
Watershed Snowpack Analysis - April 1, 1995

Watershed	Number of Data Sites	This Year as % of Last Yr	Average
Mann Creek	2	160	100
Weiser River	5	173	106
North Fork Payette	8	183	105
South Fork Payette	5	193	102
Payette Basin Total	14	180	104
Middle & North Fork Boise	7	184	109
South Fork Boise River	9	242	110
Mores Creek	5	159	96
Boise Basin Total	17	192	103
Canyon Creek	2	143	48

* 90%, 70%, 30%, and 10% chances of exceeding are the probabilities that the actual flow will exceed the volumes in the table.

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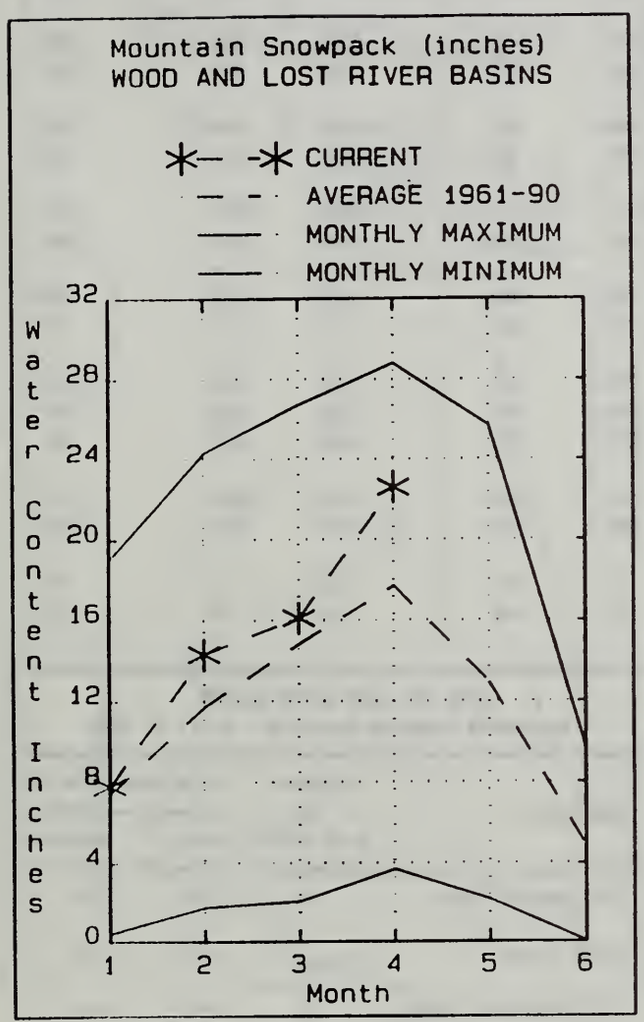
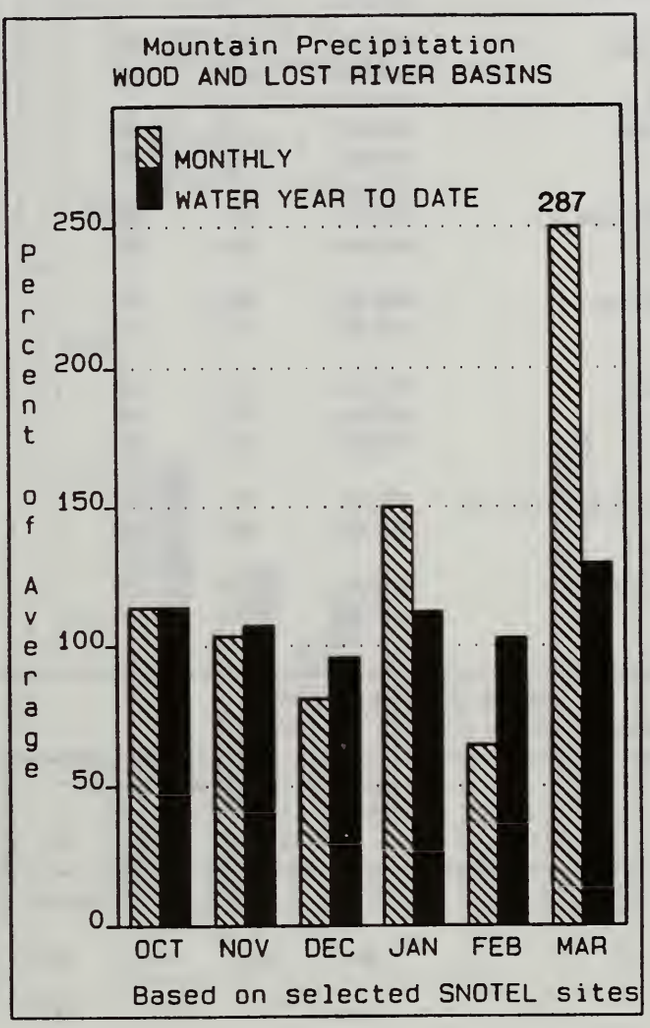
WOOD AND LOST RIVER BASINS

APRIL 1, 1995





WATER SUPPLY OUTLOOK

March was an extremely wet month in the Wood and Lost River basins. The area received almost three times the normal mountain precipitation for the month, with many SNOTEL sites setting new record precipitation increases. Fishpole Lake snow course, located on the divide between the Little Wood and Big Lost rivers, is 186% of average -- almost equal to the 35 year record high. The Big Lost River basin now reports the highest snowpack in the state -- 139% of average. As a result of the wet conditions in March, streamflow forecasts increased from last month, and now call for 141% of average for the inflow to Magic Reservoir and 135% for the inflow to Mackay Reservoir. Heavy rain and low elevation snowmelt caused significant increases in both Magic and Little Wood Reservoirs during the month. Magic gained 60,000 acre-feet, bringing it to 41% of capacity. Little Wood is now 68% full, above average conditions for this time of year. Irrigation water supplies should be plentiful in the Wood and Lost River watersheds. Because of the heavy snowpack conditions, the National Weather Service has indicated the potential for flooding in the Wood River valley. Property owners close to the Big Wood River should be prepared for high water, especially if snowmelt is delayed later into the spring by cool weather during April.

WOOD AND LOST RIVER BASINS
Streamflow Forecasts - April 1, 1995

Forecast Point	Forecast Period	<<====== Drier ====== Future Conditions ======= Wetter =====>> Chance Of Exceeding * 90% (1000AF)	70% (1000AF)	50% (Most Probable) (1000AF)	(% AVG.)	30% (1000AF)	10% (1000AF)	30-Yr Avg. (1000AF)
BIG WOOD AT HAILEY (1)	APR-SEP	320		425	149		520	286
BIG WOOD nr Bellevue	APR-JUL	235	265	285	156	305	335	183
	APR-SEP	250	285	305	155	325	360	197
CAMAS CK nr Blaine	APR-JUL	63	84	99	97	113	135	102
	APR-SEP	64	85	100	97	114	136	103
BIG WOOD blw Magic Dam (2)	APR-JUL	335	380	414	141	445	495	294
	APR-SEP	350	400	434	140	470	520	309
LITTLE WOOD nr Carey	APR-JUL	104	115	123	134	131	142	92
	APR-SEP	93	123	132	133	141	161	99
BIG LOST at Howell	APR-JUN	144	164	178	126	192	210	141
	APR-JUL	173	200	218	121	235	265	181
	APR-SEP	199	230	250	121	270	300	206
BIG LOST blw Mackay Reservoir (2)	APR-JUL	171	190	203	135	215	235	150
	APR-SEP	200	220	235	129	250	270	182
LITTLE LOST blw Wet Creek	APR-JUL	29	33	36	115	39	43	31
	APR-SEP	35	41	45	116	49	55	39

WOOD AND LOST RIVER BASINS
Reservoir Storage (1000 AF) - End of March

Reservoir	Usable Capacity	*** Usable Storage *** This Year	Last Year	Avg
MAGIC	191.5	77.8	93.4	117.4
LITTLE WOOD	30.0	20.4	29.5	18.4
MACKAY	44.4	24.2	36.1	33.3

WOOD AND LOST RIVER BASINS
Watershed Snowpack Analysis - April 1, 1995

Watershed	Number of Data Sites	This Year as % of Last Yr	Average
Big Wood ab Magic	8	275	134
Camas Creek	5	444	92
Big Wood Basin Total	13	295	124
Little Wood River	4	331	135
Fish Creek	3	424	108
Big Lost River	7	325	139
Little Lost River	4	223	115

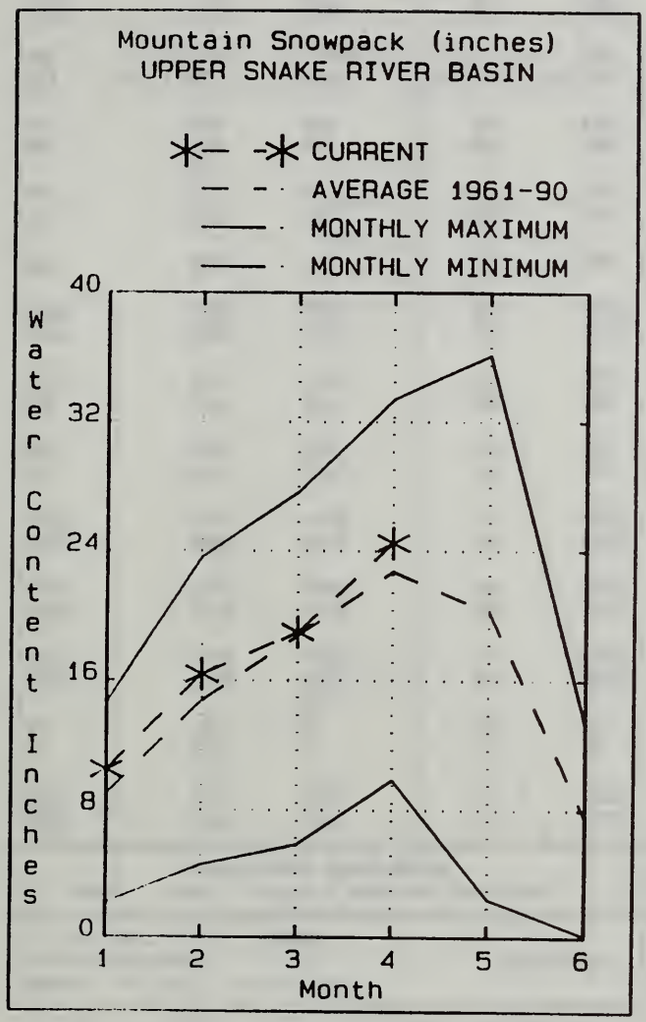
* 90%, 70%, 30%, and 10% chances of exceeding are the probabilities that the actual flow will exceed the volumes in the table.

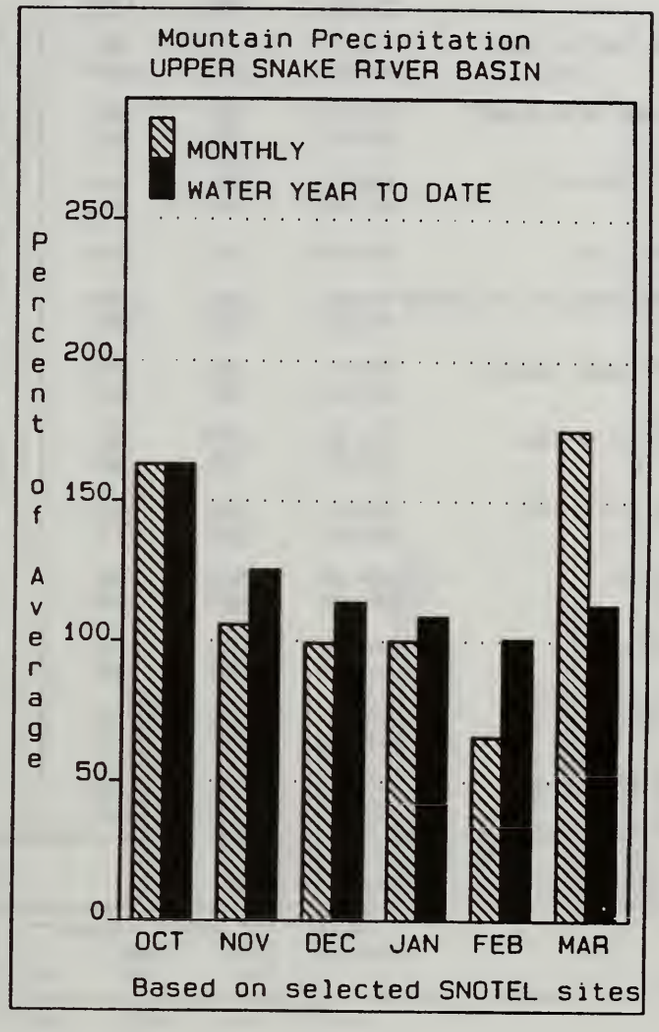
The average is computed for the 1961-1990 base period.

(1) - The values listed under the 10% and 90% Chance of Exceeding are actually 5% and 95% exceedance levels.
(2) - The value is natural flow - actual flow may be affected by upstream water management.

UPPER SNAKE RIVER BASIN

APRIL 1, 1995





WATER SUPPLY OUTLOOK

March was a very wet month for the upper Snake basin. Mountain precipitation was 175% of average, bringing the total for the water year to 113% of average. White Elephant SNOTEL site, located on Sawtell Mountain above Island Park, has 42.6 inches of snow water content (152% of average) -- the second highest April 1 value since 1961. Basin snowpack percentages range from 125% of average in the Henrys Fork to 82% in the Hoback River in western Wyoming. Most streamflow forecasts increased from last month and now range from 100 to 129% of average. Only the Portneuf River is expected to yield less than average runoff this year. Reservoir storage for the eight major reservoirs in the upper Snake basin is 65% of capacity, 87% of average. These reservoirs are expected to fill this year, and a full irrigation supply is virtually assured. Because of the high snowpack in the Henrys Fork and Teton River area, the National Weather Service has indicated the potential for localized flooding, especially if the snow melt is delayed until May.

UPPER SNAKE RIVER BASIN
Streamflow Forecasts - April 1, 1995

Forecast Point	Forecast Period	<<====== Drier ====== Future Conditions ======= Wetter =====>> Chance Of Exceeding * 90% (1000AF)	70% (1000AF)	50% (Most Probable) (1000AF)	(% AVG.)	30% (1000AF)	10% (1000AF)	30-Yr Avg. (1000AF)
HENRYS FORK nr Ashton (2)	APR-JUL	580	625	660	121	695	740	544
	APR-SEP	775	820	860	118	900	950	730
HENRYS FORK nr Rexburg (2)	APR-JUL	1330	1430	1500	122	1570	1670	1228
	APR-SEP	1600	1760	1830	118	1910	2110	1551
FALLS RIVER nr Squirrel (2)	APR-JUL	360	385	400	110	415	440	364
	APR-SEP	425	450	470	109	490	515	432
TETON abv S Leigh Ck nr Driggs	APR-JUL	165	185	198	129	210	230	153
	APR-SEP	215	240	257	129	275	295	199
TETON nr St. Anthony (2)	APR-JUL	395	440	470	125	500	545	375
	APR-SEP	485	535	568	125	600	650	454
SNAKE nr Moran (1,2)	APR-SEP	775	850	895	103	940	1020	869
SNAKE R abv Palisades Rsvr nr Alpine	APR-JUL	2040	2270	2420	106	2570	2800	2286
	APR-SEP	2310	2590	2780	105	2970	3250	2647
GREYS R abv Palisades Reservoir	APR-JUL	280	315	340	102	365	400	333
	APR-SEP	325	365	395	102	425	465	388
SALT abv Reservoir nr Etna	APR-JUL	230	285	320	100	355	410	320
	APR-SEP	320	365	405	101	445	500	400
PALISADES Rsvr Inflow (adj)	APR-JUL	2880	3160	3350	104	3540	3820	3225
	APR-SEP	3160	3710	3930	104	4150	4660	3762
SNAKE nr Heise (2)	APR-JUL	3060	3380	3590	104	3800	4120	3451
	APR-SEP	3400	3970	4220	104	4470	5020	4048
SNAKE nr Blackfoot (2)	APR-JUL	4220	4670	4970	112	5270	5720	4444
	APR-SEP	5320	5810	6140	112	6470	6960	5482
PORTNEUF at Topaz	APR-JUL	53	61	67	93	73	81	72
	APR-SEP	70	79	86	92	93	102	93
AMERICAN FALLS RESV INFLOW	APR-JUL	2360	3100	3440	112	3780	4510	3066
	APR-SEP	2720	3300	3700	112	4100	4680	3303

UPPER SNAKE RIVER BASIN
Reservoir Storage (1000 AF) - End of March

Reservoir	Usable Capacity	*** Usable Storage *** This Year	Last Year	Avg
HENRYS LAKE	90.4	80.5	88.1	80.1
ISLAND PARK	135.2	105.5	127.1	119.3
GRASSY LAKE	15.2	13.0	13.6	11.2
JACKSON LAKE	847.0	422.0	625.1	473.2
PALISADES	1400.0	618.6	1398.4	1013.5
RIRIE	80.5	33.0	48.9	44.3
BLACKFOOT	348.7	130.8	205.5	260.7
AMERICAN FALLS	1672.6	1592.6	1665.0	1452.5

UPPER SNAKE RIVER BASIN
Watershed Snowpack Analysis - April 1, 1995

Watershed	Number of Data Sites	This Year as % of Last Yr	Average
Camas-Beaver Creeks	4	232	123
Henrys Fork River	12	182	125
Teton River	8	164	111
Snake above Jackson Lake	13	163	108
Gros Ventre River	3	131	89
Hoback River	6	135	82
Greys River	5	134	89
Salt River	5	123	92
Snake above Palisades	32	145	98
Willow Creek	7	197	96
Blackfoot River	5	148	82
Portneuf River	6	139	89
Snake abv American Falls	47	148	96

* 90%, 70%, 30%, and 10% chances of exceeding are the probabilities that the actual flow will exceed the volumes in the table.

The average is computed for the 1961-1990 base period.

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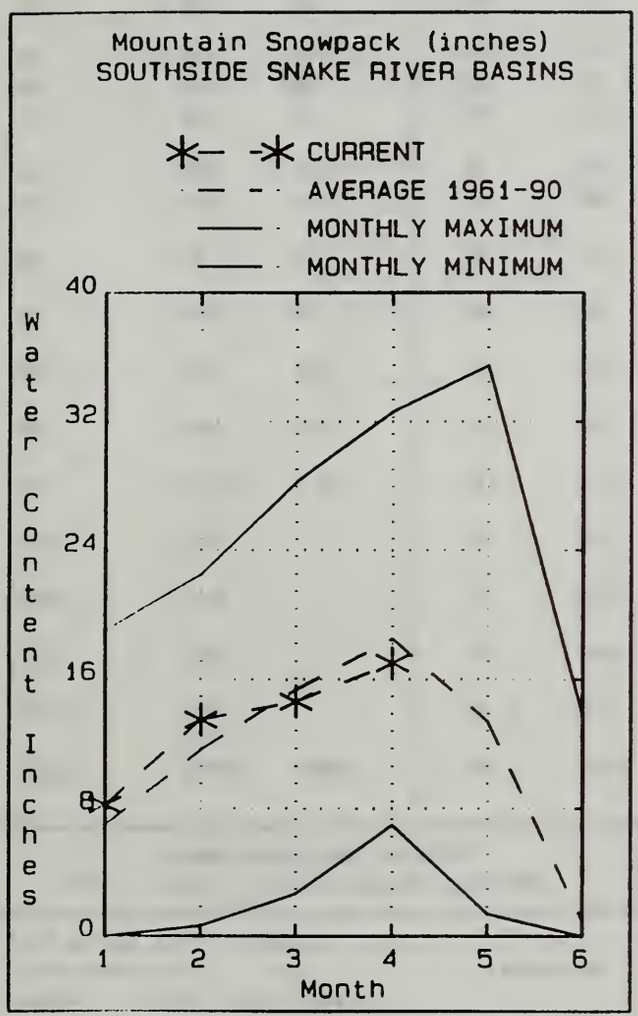
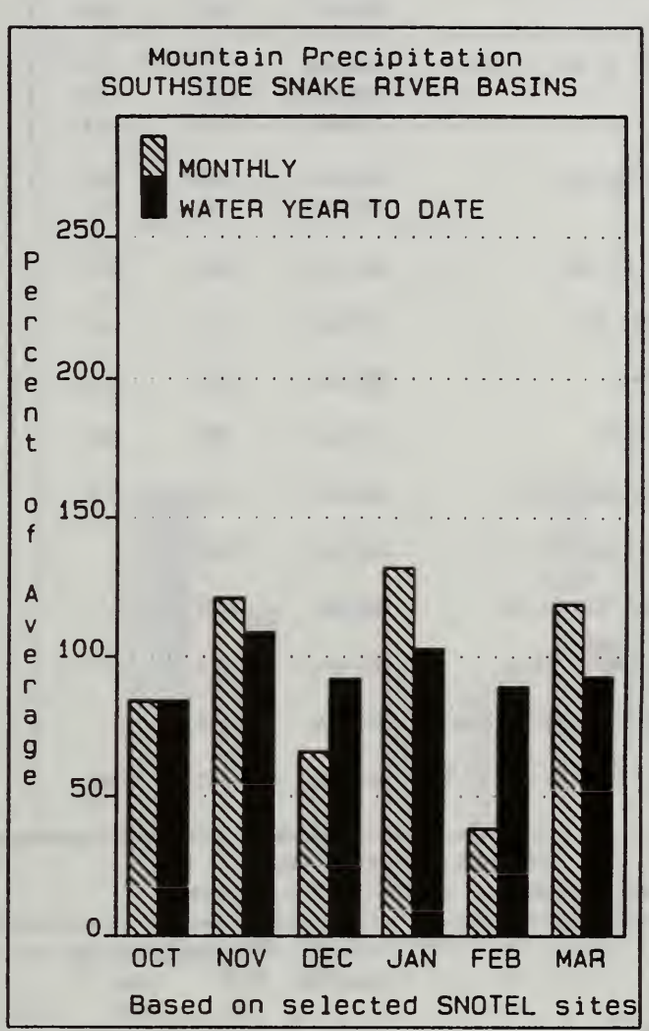
SOUTHSIDE SNAKE RIVER BASINS

APRIL 1, 1995





WATER SUPPLY OUTLOOK

March precipitation was above average across southern and southwestern Idaho. Precipitation for the water year is just below average at 93% of average. Snowpacks are about 80% of average in this area. Reservoir storage remains low in Salmon Falls and Oakley reservoirs with each reporting less than 25% of capacity. Early winter runoff has already brought Owyhee Reservoir up to 68% of capacity, promising good water supplies for that basin. Streamflow forecasts for the remaining runoff period call for 84% of average for Oakley reservoir inflow and 92% for Salmon Falls Creek. The Surface Water Supply Index (SWSI) is near the median value for these two basins, indicating a potential for tight irrigation supplies. Good spring precipitation would help ensure adequate water supplies. Because of early snowmelt, the Bruneau and Jarbidge rivers should have moderate flows this year, with a potentially shorter than normal floating season. Heavy rains will be needed to see an increase in flow on the Owyhee River again this year.

SOUTHSIDE SNAKE RIVER BASINS

Streamflow Forecasts - April 1, 1995

Forecast Point	Forecast Period	<<====== Drier ====== Future Conditions ======= Wetter =====>> Chance Of Exceeding * 90% (1000AF)	70% (1000AF)	50% (Most Probable) (1000AF)	(% AVG.)	30% (1000AF)	10% (1000AF)	30-Yr Avg. (1000AF)
OAKLEY RESERVOIR Inflow (2)	APR-JUL	13.0	20	24	83	29	35	29
	APR-SEP	16.0	22	27	84	32	39	32
SALMON FALLS CK nr San Jacinto	APR-JUN	36	55	67	89	79	98	75
	APR-JUL	38	58	72	90	86	106	80
	APR-SEP	42	63	77	92	91	113	84
BRUNEAU nr Hot Spring	APR-JUL	110	148	173	83	198	235	209
	APR-SEP	106	155	182	82	210	265	221
OWYHEE nr Gold Ck (2)	APR-JUL	12.0	19.0	24	84	28	35	28
OWYHEE nr Owyhee (2)	APR-JUL	40	60	74	86	88	108	86
OWYHEE near Rome	APR-JUL	127	179	220	58	266	340	377
OWYHEE RESV INFLOW	APR-JUL	152	205	245	63	289	360	390
SUCCOR CK nr Jordan Valley	APR-JUL	4.2	8.0	10.6	110	13.2	17.0	9.6
SNAKE RIVER at King Hill (2)	APR-JUL	1220		2190	76		3130	2896
SNAKE RIVER near Murphy (2)	APR-JUL	1190		2190	73		3190	2980
SNAKE RIVER at Weiser (2)	APR-JUL	2840		4580	84		6340	5465
SNAKE RIVER at Hells Canyon Dam	APR-JUL	3190		5110	83		7050	6129
SNAKE blw Lower Granite Dam (1,2)	APR-JUL	14100	17500	19000	88	20500	23900	21650

SOUTHSIDE SNAKE RIVER BASINS

Reservoir Storage (1000 AF) - End of March

Reservoir	Usable Capacity	*** Usable Storage *** This Year	Last Year	Avg
OAKLEY	77.4	19.3	17.2	34.0
SALMON FALLS	182.6	38.6	50.3	62.3
WILDHORSE RESERVOIR	71.5	28.8	29.8	38.2
OWYHEE	715.0	483.1	498.8	579.0
BROWNLEE	1419.3	1268.7	1346.9	893.1

SOUTHSIDE SNAKE RIVER BASINS

Watershed Snowpack Analysis - April 1, 1995

Watershed	Number of Data Sites	This Year as % of Last Yr	Average
Raft River	6	142	79
Goose-Trapper Creeks	6	144	77
Salmon Falls Creek	6	156	78
Bruneau River	8	172	76
Owyhee Basin Total	20	196	80

* 90%, 70%, 30%, and 10% chances of exceeding are the probabilities that the actual flow will exceed the volumes in the table.

The average is computed for the 1961-1990 base period.

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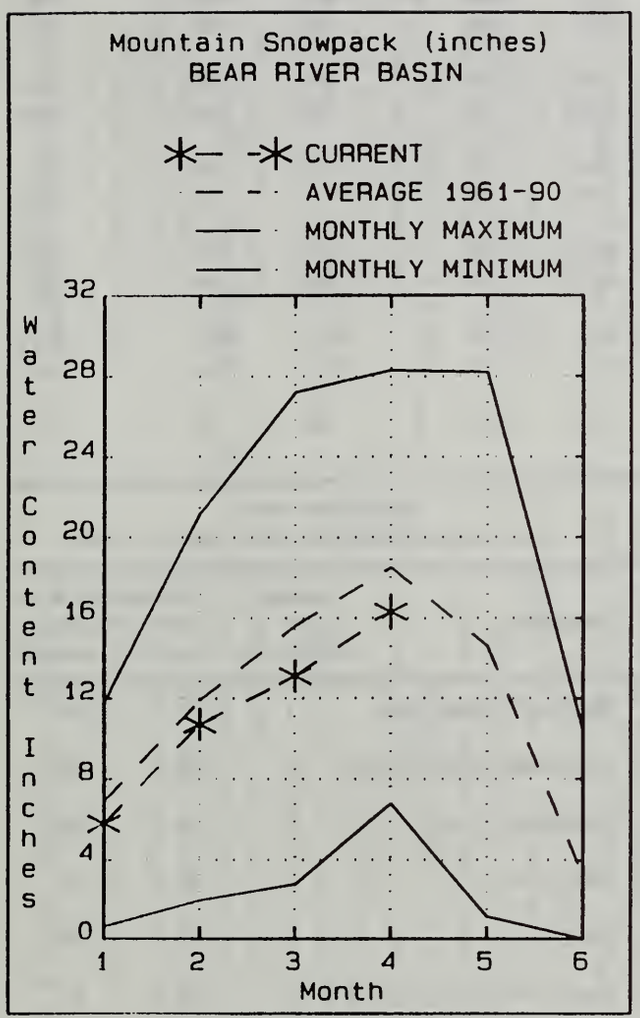
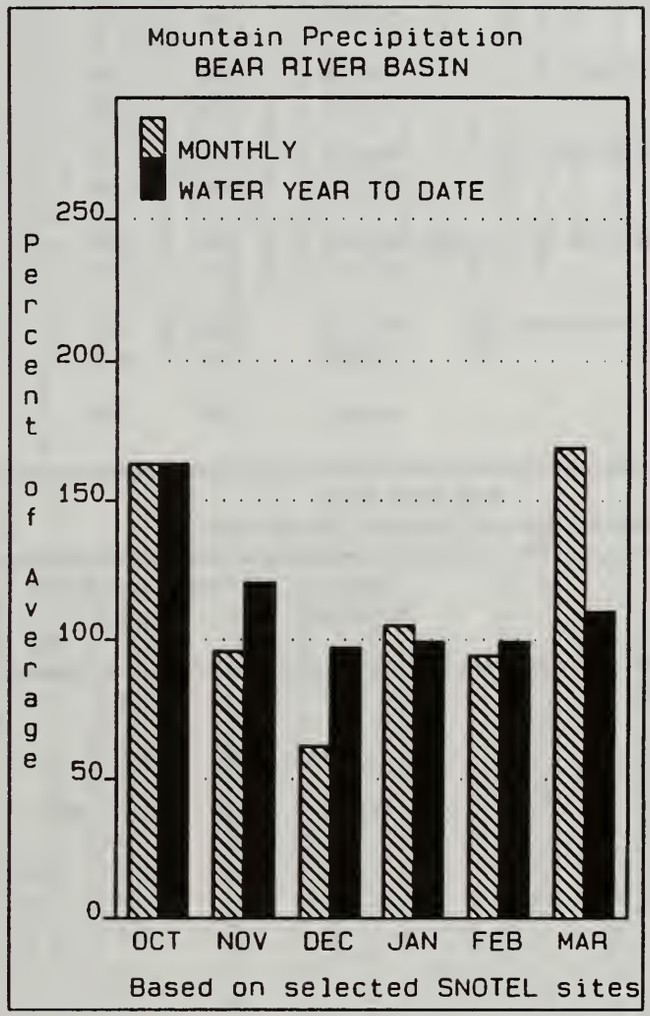
BEAR RIVER BASIN

APRIL 1, 1995





WATER SUPPLY OUTLOOK

Heavy precipitation fell in the Bear River area during March. The basin received 169% of average for the month, bringing the water year total to 110% of average. Most snowpacks increased 5-10 percentage points from last month and now range from 76% of average in the Malad basin to 98% for the Bear River above the Wyoming-Idaho state line. In spite of this good news, water supply conditions remain tight in the area. Reservoir storage remains low in Bear Lake (27% of capacity) and Montpelier Creek Reservoir (38% of capacity). Most streams are expected to yield below average runoff throughout the Bear River basin. As a result of the low storage in Bear Lake, the Surface Water Supply Index (SWSI), which combines reservoir storage and projected runoff, is -3.8, indicating the potential for agricultural water supply shortages. Water users should contact their irrigation districts for more specific information.

BEAR RIVER BASIN
Streamflow Forecasts - April 1, 1995

Forecast Point	Forecast Period	<<====== Drier ====== Future Conditions ======= Wetter =====>> Chance Of Exceeding * 90% (1000AF)	70% (1000AF)	50% (Most Probable) (1000AF)	(% AVG.)	30% (1000AF)	10% (1000AF)	30-Yr Avg. (1000AF)
BEAR R nr Randolph, UT	APR-JUL	52	90	116	98	142	181	118
	APR-SEP	51	95	124	98	153	197	127
SMITHS FORK nr Border, WY	APR-JUL	69	83	92	90	101	115	102
	APR-SEP	82	97	108	92	119	134	118
THOMAS FK nr WY-ID State Line	APR-JUL	15.0	20	24	73	29	39	33
	APR-SEP	16.0	22	26	72	31	41	36
BEAR R blw Stewart Dam nr Montpelier	APR-JUL	163	220	255	89	290	345	288
	APR-SEP	180	240	285	87	330	390	327
MONTPELIER CK nr Montpelier (2)	APR-JUL	6.3	7.9	9.2	75	10.7	13.5	12.2
	APR-SEP	7.8	9.5	11.0	77	12.7	15.6	14.2
CUB R nr Preston	APR-JUL	35	40	44	94	48	53	47

BEAR RIVER BASIN
Reservoir Storage (1000 AF) - End of March

Reservoir	Usable Capacity	*** Usable Storage *** This Year	Last Year	Avg
WOODRUFF NARROWS	57.3	28.5	44.6	---
WOODRUFF CREEK	4.0	4.0	3.4	---
BEAR LAKE	1421.0	385.3	566.5	1002.1
MONTPELIER CREEK	4.0	1.5	2.8	1.6

BEAR RIVER BASIN
Watershed Snowpack Analysis - April 1, 1995

Watershed	Number of Data Sites	This Year as % of Last Yr	Average
Smiths & Thomas Forks	3	137	93
Bear River ab WY-ID line	10	137	98
Montpelier Creek	2	154	88
Mink Creek	4	134	90
Cub River	3	123	92
Bear River ab ID-UT line	22	134	94
Malad River	3	183	76

* 90%, 70%, 30%, and 10% chances of exceeding are the probabilities that the actual flow will exceed the volumes in the table.

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(2) - The value is natural flow - actual flow may be affected by upstream water management.

Streamflow Adjustment List For All Forecasts Published In Idaho Basin Outlook Report

Streamflow forecasts are projections of runoff volumes that would have occurred naturally without influences from upstream reservoirs or diversions. These values are referred to as natural or adjusted flows. To make these adjustments, changes in reservoir storage, diversions, and interbasin transfers are added or subtracted from the observed (actual) streamflow volumes. The following list documents the adjustments made to each forecast point in this report.

Panhandle River Basins

KOOTENAI R AT LEONIA, ID
+ LAKE KOOCANUSA (STORAGE CHANGE)

CLARK FORK R AT WHITEHORSE RAPIDS, ID
+ HUNGRY HORSE (STORAGE CHANGE)
+ FLATHEAD LAKE (STORAGE CHANGE)
+ NOXON RAPIDS RESV (STORAGE CHANGE)

PEND OREILLE LAKE INFLOW, ID
+ PEND OREILLE R AT NEWPORT, WA
+ HUNGRY HORSE (STORAGE CHANGE)
+ FLATHEAD LAKE (STORAGE CHANGE)
+ NOXON RAPIDS (STORAGE CHANGE
+ PEND OREILLE LAKE (STORAGE CHANGE)

PRIEST R NR PRIEST R, ID
+ PRIEST LAKE (STORAGE CHANGE)

COEUR D'ALENE R AT ENAVILLE, ID - No Corrections

ST. JOE R AT CALDER, ID - No Corrections

SPOKANE R NR POST FALLS, ID
+ COEUR D'ALENE LAKE (STORAGE CHANGE)

SPOKANE R AT LONG LAKE, ID
+ COEUR D'ALENE LAKE (STORAGE CHANGE)

Clearwater River Basin

CLEARWATER R AT OROFINO, ID - No Corrections

DWORSHAK RESERVOIR INFLOW, ID
+ CLEARWATER R NR PECK, ID
+ DWORSHAK RESV (STORAGE CHANGE)
- CLEARWATER R AT OROFINO, ID

CLEARWATER R AT SPALDING, ID
+ DWORSHAK RESV (STORAGE CHANGE)

Salmon River Basin

SALMON R AT SALMON, ID - No Corrections

SALMON R AT WHITE BIRD, ID - No Corrections

Weiser, Payette, Boise River Basins

WEISER R NR WEISER, ID - No Corrections

SF PAYETTE R AT LOWMAN, ID - No Corrections

DEADWOOD RESERVOIR INFLOW, ID
+ DEADWOOD R BLW DEADWOOD RESV NR LOWMAN
+ DEADWOOD RESV (STORAGE CHANGE)

NF PAYETTE R AT CASCADE, ID
+ CASCADE RESV (STORAGE CHANGE)

NF PAYETTE R NR BANKS, ID
+ CASCADE RESV (STORAGE CHANGE)

PAYETTE R NR HORSESHOE BEND, ID
+ DEADWOOD RESV (STORAGE CHANGE)
+ CASCADE RESV (STORAGE CHANGE)

BOISE R NR TWIN SPRINGS, ID - No Corrections

SF BOISE R AT ANDERSON RANCH DAM, ID
+ ANDERSON RANCH RESV (STORAGE CHANGE)

MORES CK NR ARROWROCK DAM, ID - No Corrections

BOISE R NR BOISE, ID
+ ANDERSON RANCH RESV (STORAGE CHANGE)
+ ARROWROCK RESV (STORAGE CHANGE)
+ LUCKY PEAK RESV (STORAGE CHANGE)

Wood and Lost River Basins

BIG WOOD R AT HAILEY, ID - No Corrections

BIG WOOD R NR BELLEVUE, ID - No Corrections

CAMAS CK NR BLAINE, ID - No Corrections

BIG WOOD R BLW MAGIC DAM NR RICHFIELD, ID
+ MAGIC RESV (STORAGE CHANGE)

LITTLE WOOD R NR CAREY, ID
+ LITTLE WOOD RESV (STORAGE CHANGE)

BIG LOST R AT HOWELL RANCH NR CHILLY, ID - No Corrections

BIG LOST R BLW MACKAY RESV NR MACKAY, ID
+ MACKAY RESV (STORAGE CHANGE)

LITTLE LOST R BLW WET CK NR HOWE, ID - No Corrections

Upper Snake River Basin

HENRYS FORK NR ASHTON, ID
+ HENRYS LAKE (STORAGE CHANGE)
+ ISLAND PARK RESV (STORAGE CHANGE)

HENRYS FORK NR REXBURG, ID
+ HENRYS LAKE (STORAGE CHANGE)
+ ISLAND PARK RESV (STORAGE CHANGE)
+ DIV FM HENRYS FK BTW ASHTON & ST. ANTHONY, ID
+ DIV FM HENRYS FK BTW ST. ANTHONY & REXBURG, ID
+ GRASSY LAKE (STORAGE CHANGE)

FALLS R NR SQUIRREL, ID
+ GRASSY LAKE (STORAGE CHANGE)

TETON R ABV SO LEIGH CK NR DRIGGS, ID - No Corrections

TETON R NR ST. ANTHONY, ID
- CROSS CUT CANAL
+ SUM OF DIVERSIONS ABV GAGE

SNAKE R NR MORAN, WY
+ JACKSON LAKE (STORAGE CHANGE)

PACIFIC CK AT MORAN, WY - No Corrections

SNAKE R ABV PALISADES RESV NR ALPINE, WY
+ JACKSON LAKE (STORAGE CHANGE)

GREYS R ABV PALISADES RESV, WY - No Corrections

SALT R ABV RESV NR ETNA, WY - No Corrections

PALISADES RESERVOIR INFLOW, ID
+ SNAKE R NR IRWIN, ID
+ PALISADES RESV (STORAGE CHANGE)
+ JACKSON LAKE (STORAGE CHANGE)

SNAKE R NR HEISE, ID
+ PALISADES RESV (STORAGE CHANGE)
+ JACKSON LAKE (STORAGE CHANGE)

SNAKE R NR BLACKFOOT, ID
+ PALISADES RESV (STORAGE CHANGE)
+ JACKSON LAKE (STORAGE CHANGE)
+ DIV FM SNAKE R BTW HEISE AND SHELLY GAGES
+ DIV FM SNAKE R BTW SHELLY AND BLACKFT, ID

PORTNEUF R AT TOPAZ, ID - No Corrections

AMERICAN FALLS RESERVOIR INFLOW, ID
+ SNAKE R AT NEELEY, ID
+ AMERICAN FALLS (STORAGE CHANGE)
+ PALISADES RESV (STORAGE CHANGE)
+ JACKSON LAKE (STORAGE CHANGE)

Southside Snake River Basins

OAKLEY RESERVOIR INFLOW, ID
+ GOOSE CK ABV TRAPPER CK NR OAKLEY, ID
+ TRAPPER CK NR OAKLEY, ID
SALMON FALLS CK NR SAN JACINTO, NV - No Corrections
BRUNEAU R NR HOT SPRINGS, ID - No Corrections
OWYHEE R NR GOLD CK, NV
+ WILDHORSE RESV (STORAGE CHANGE)
OWYHEE R NR ROME, OR
+ WILDHORSE RESV (STORAGE CHANGE)
+ JORDAN VALLEY RESV (STORAGE CHANGE)
OWYHEE RESERVOIR INFLOW, OR
+ OWYHEE R BLW OWYHEE DAM, OR
+ OWYHEE RESV (STORAGE CHANGE)
+ DIV TO NORTH AND SOUTH CANALS
SUCCOR CK NR JORDAN VALLEY, OR - No Corrections
SNAKE R - KING HILL, ID - No Corrections
SNAKE R NR MURPHY, ID - No Corrections
SNAKE R AT WEISER, ID - No Corrections
SNAKE R AT HELLS CANYON DAM, ID
+ BROWNLEE RESV (STORAGE CHANGE)

Bear River Basin

BEAR R NR RANDOLPH, UT
+ SULPHUR CK RESV (STORAGE CHANGE)
+ CHAPMAN CANAL DIVERSION
+ WOODRUFF NARROWS RESV (STORAGE CHANGE)
SMITHS FORK NR BORDER, WY - No Corrections
THOMAS FORK NR WY-ID STATELINE - No Corrections
BEAR R BLW STEWART DAM, ID
+ SULPHUR CK RESV (STORAGE CHANGE)
+ CHAPMAN CANAL DIVERSION
+ WOODRUFF NARROWS RESV (STORAGE CHANGE)
+ TOTAL OF 12 CANALS
+ WESTFORK CANAL
+ DINGLE INLET CANAL
+ RAINBOW INLET CANAL
MONTPELIER CK NR MONTPELIER, ID
+ MONTPELIER CK RESV (STORAGE CHANGE)
CUB R NR PRESTON, ID - No Corrections

RESERVOIR CAPACITY DEFINITIONS - Different agencies use various definitions when reporting reservoir capacity and contents. Reservoir storage terms include dead, inactive, active, and surcharge storage. The table below lists these volumes for each reservoir in this report, and defines the storage volumes that NRCS uses when reporting capacity and current reservoir storage. In most cases, NRCS reports usable storage, which includes active and inactive storage.

BASIN/ RESERVOIR	DEAD STORAGE	INACTIVE STORAGE	ACTIVE STORAGE	SURCHARGE STORAGE	NRCS CAPACITY	NRCS FIGURES INCLUDE
PANHANDLE REGION						
HUNGRY HORSE	39.73	--	3451.00	--	3451.0	ACTIVE
FLATHEAD LAKE	Unknown	--	1791.00	--	1971.0	ACTIVE
NOXON RAPIDS	Unknown	--	335.00	--	335.0	ACTIVE
PEND OREILLE	406.20	112.40	1042.70	--	1561.3	DEAD + INACTIVE + ACTIVE
COEUR D'ALENE	--	13.50	225.00	--	238.5	INACTIVE + ACTIVE
PRIEST LAKE	20.00	28.00	71.30	--	119.3	DEAD + INACTIVE + ACTIVE
CLEARWATER BASIN						
DWORSHAK	--	1452.00	2007.00	--	3459.0	INACTIVE + ACTIVE
WEISER/BOISE/PAYETTE BASINS						
MANN CREEK	1.61	0.24	11.10	--	11.1	ACTIVE
CASCADE	--	50.00	653.20	--	703.2	INACTIVE + ACTIVE
DEADWOOD	1.50	--	161.90	--	161.9	ACTIVE
ANDERSON RANCH	29.00	41.00	423.18	--	464.2	INACTIVE + ACTIVE
ARROWROCK	--	--	286.60	--	286.6	ACTIVE
LUCKY PEAK	--	28.80	264.40	13.80	293.2	INACTIVE + ACTIVE
LAKE LOWELL	--	8.00	169.10	--	169.1	ACTIVE
WOOD/LOST BASINS						
MAGIC	--	--	191.50	--	191.5	ACTIVE
LITTLE WOOD	--	--	30.00	--	30.0	ACTIVE
MACKAY	0.13	--	44.37	--	44.4	ACTIVE
UPPER SNAKE BASIN						
HENRYS LAKE	--	--	90.40	--	90.4	ACTIVE
ISLAND PARK	0.40	--	127.30	7.90	135.2	ACTIVE + SURCHARGE
GRASSY LAKE	--	--	15.18	--	15.2	ACTIVE
JACKSON LAKE	--	--	847.00	--	847.0	ACTIVE
PALISADES	44.10	155.50	1200.00	--	1400.0	DEAD + INACTIVE + ACTIVE
RIRIE	4.00	6.00	80.54	10.00	80.5	ACTIVE
BLACKFOOT	--	--	348.73	--	348.7	ACTIVE
AMERICAN FALLS	--	--	1672.60	--	1672.6	ACTIVE
SOUTHSIDE SNAKE BASINS						
OAKLEY	--	--	77.40	--	77.4	ACTIVE
SALMON FALLS	48.00	--	182.65	--	182.6	ACTIVE
WILDHORSE	--	--	71.50	--	71.5	ACTIVE
OWYHEE	406.83	--	715.00	--	715.0	ACTIVE
BROWNLEE	0.45	444.00	975.30	--	1419.3	INACTIVE + ACTIVE
BEAR RIVER BASIN						
WOODRUFF NARROWS	--	1.50	57.30	--	57.3	ACTIVE
WOODRUFF CREEK	--	4.00	4.00	--	4.0	ACTIVE
BEAR LAKE	--	--	1421.00	--	1421.0	ACTIVE
MONTPELIER CREEK	0.21	--	3.84	--	4.0	DEAD + ACTIVE

Interpreting Streamflow Forecasts

Introduction
Each month, five forecasts are issued for each forecast point and each forecast period. Unless otherwise specified, all streamflow forecasts are for streamflow volumes that would occur naturally without any upstream influences. Water users need to know what the different forecasts represent if they are to use the information correctly when making operational decisions. The following is an explanation of each of the forecasts.

Most Probable (50 Percent Chance of Exceeding) Forecast. This forecast is the best estimate of streamflow volume that can be produced given current conditions and based on the outcome of similar past situations. There is a 50 percent chance that the streamflow volume will exceed this forecast value. There is a 50 percent chance that the streamflow volume will be less than this forecast value.

The most probable forecast will rarely be exactly right, due to errors resulting from future weather conditions and the forecast equation itself. This does not mean that users should not use the most probable forecast; it means that they need to evaluate existing circumstances and determine the amount of risk they are willing to take by accepting this forecast value.

To Decrease the Chance of Having Too Little Water
If users want to make sure there is enough water available for their operations, they might determine that a 50 percent chance of the streamflow volume being lower than the most probable forecast is too much risk to take. To reduce the risk of not having enough water available during the forecast period, users can base their operational decisions on one of the forecasts with a greater chance of being exceeded (or possibly some point in-between). These include:

70 Percent Chance of Exceeding Forecast. There is a 70 percent chance that the streamflow volume will exceed this forecast value. There is a 30 percent chance the streamflow volume will be less than this forecast value.
90 Percent Chance of Exceeding Forecast. There is a 90 percent chance that the streamflow volume will exceed this forecast value. There is a 10 percent chance the streamflow volume will be less than this forecast value.

To Decrease the Chance of Having Too Much Water
If users want to make sure they don't have too much water, they might determine that a 50 percent chance of the streamflow being higher than the most probable forecast is too much of a risk to take. To reduce the risk of having too much water available during the forecast period, users can base their operational decisions on one of the forecasts with a smaller chance of being exceeded. These include:

30 Percent Chance of Exceeding Forecast. There is a 30 percent chance that the streamflow volume will exceed this forecast value. There is a 70 percent chance the streamflow volume will be less than this forecast value.
10 Percent Chance of Exceeding Forecast. There is a 10 percent chance that the streamflow volume will exceed this forecast value. There is a 90 percent chance the streamflow volume will be less than this forecast value.

Using the forecasts - an example

Using the Most Probable Forecast. Using the example forecasts shown below, users can reasonably expect 36,000 acre-feet to flow past the gaging station on the Mary's River near Deeth between March 1 and July 31.

Using the Higher Exceedance Forecasts. If users anticipate a somewhat drier trend in the future (monthly and seasonal weather outlooks are available from the National Weather Service every two weeks), or if they are operating at a level where an unexpected shortage of water could cause problems, they might want to plan on receiving only 20,000 acre-feet (from the 70 percent chance of exceeding forecast). In seven out of ten years with similar conditions, streamflow volumes will exceed the 20,000 acre-foot forecast.

If users anticipate extremely dry conditions for the remainder of the season, or if they determine the risk of using the 70 percent chance of exceeding forecast is too great, then they might plan on receiving only 5000 acre-feet (from the 90 percent chance of exceeding forecast). Nine out of ten years with similar conditions, streamflow volumes will exceed the 5000 acre-foot forecast.

Using the Lower Exceedance Forecasts. If users expect wetter future conditions, or if the chance that five out of every ten years with similar conditions would produce streamflow volumes greater than 36,000 acre-feet was more than they would like to risk, they might plan on receiving 52,000 acre-feet (from the 30 percent chance of exceeding forecast) to minimize potential flooding problems. Three out of ten years with similar conditions, streamflows will exceed the 52,000 acre-foot forecast.

In years when users expect extremely wet conditions for the remainder of the season and the threat of severe flooding and downstream damage exists, they might choose to use the 76,000 acre-foot (10 percent chance of exceeding) forecast for their water management operations. Streamflow volumes will exceed this level only one year out of ten.

UPPER HUMBOLDT RIVER BASIN

FORECAST POINT	FORECAST PERIOD	STREAMFLOW FORECASTS <-----DRIER----- FUTURE CONDITIONS -----WETTER-----> Chance of Exceeding						
		90% (1000AF)	70% (1000AF)	50% (Most Probable (1000AF)	(% AVG)	30% (1000AF)	10% (1000AF)	25 YR (1000AF)
MARY'S RIVER	MAR-JUL	5.0	20.0	36	77	52	76	47
nr Deeth	APR-JUL	8.0	17.0	31	74	45	67	42
LAMOILLE CREEK	MAR-JUL	6.0	16.0	24	79	32	43	31
nr Lamoille	APR-JUL	4.0	15.0	22	75	30	41	30
NF HUMBOLDT RIVER at Devils Gate	MAR-JUL	6.0	12.0	43	73	74	121	59

For more information concerning streamflow forecasting ask your local NRCS field office for a copy of "A Field Office Guide for Interpreting Streamflow Forecasts".

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In addition to basin outlook reports, a Water Supply Forecast for the Western United States is published by the Natural Resources Conservation Service and National Weather Service monthly, January through May. Reports may be obtained from the Natural Resources Conservation Service, West National Technical Center, 101 SW Main Street, Suite 1700, Portland, OR 97204-3225.